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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,240	12/02/2003	Phillip Clark	MCA-635	3523
7590	05/26/2004		EXAMINER	
Kevin S. Lemack Nields & Lemack Suite 7 176 E. Main Street Westboro, MA 01581			MENON, KRISHNAN S	
			ART UNIT	PAPER NUMBER
			1723	
DATE MAILED: 05/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/726,240	<b>Applicant(s)</b> CLARK ET AL.	
	<b>Examiner</b> Krishnan S Menon	<b>Art Unit</b> 1723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/4/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Mathus (US 5,972,694).

Claim 1: Mathus teaches a device (Fig 2-9B) having a surface comprising multiple spatially discrete regions (Fig 2) having utilitarian discontinuities (26,28) having different functionalities (26 is a filter, 28 is an access port).

Claim 2: Discrete regions arranged in a row (see fig 2)

Claim 3: one of the functionality is filtration – abstract

Claim 4: includes a membrane – see abstract

Claim 11: discrete regions in columns – fig 2: column or row depend only on how one looks at the figure.

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2. Claims 1,2 and 9-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Nguyen et al (US 2003/0108453 A1).

Nguyen teaches a device having a surface having multiple (applicant uses the words 'multiple' and 'plurality' in the claims to mean the same; 'multiple' by Webster's Collegiate Dictionary, 10<sup>th</sup> Ed., means 'consisting of more than one'; the examiner therefore gives the broadest reasonable limitation to the claim, and consider 'multiple' and 'plurality' in the claims to mean as 'more than one' for examination purposes) discrete regions and sub-regions as in the instant claims: See the figure – the plate depicted can be have different regions and sub-regions, with different functionality is each region and sub-regions. For example, the plate can be divided into two regions, one to the left of the arrow 15 and the other to the right of the arrow 15. The regions have sub-regions as rows (or columns depending on how one looks at it) having wells with different functions. The functions of the wells can be storage, wash well, or cycle wells (see page 1 para 8, page 2 para 9,14 and 15)

3. Claims 1-4, 6-8 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Clark (US 5,141,718).

Clark teaches a device (10) having a surface comprising a multiple spatially discrete regions having wells (14) and access area (16) (see figures 5 and 11: regions having strips 42 and triangles 16).

Claims 2 and 11: Regions are arranged in row or col as one looks at it (see figures 5 and 11).

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Claim 3 and 4: well having filtration as functionality – see strip 42, figures.

Claim 6: base supporting the removable regions – base on 10, removable strip 42.

Claim 7: discrete regions in sealing relationship with base – sealed by the membrane with respect to the base – col 3 lines 16-42)

Claim 8: support structure to position removable vessels – strip 42, fig 3,4; or figures 9 and 10.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark (US 5,141,718).

Clark teaches all the limitations of claim 1. Claim 5 adds the further limitation of the membrane being ultrafiltration membrane, which Clark does not teach explicitly. However Clark teaches the device having membranes (col 3 lines 16-42) and the invention as applicable for dialysis. It would be obvious to one of ordinary skill in the art at the time of invention to have an ultrafiltration membrane in Clark (718) for dialysis applications.

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### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kroy et al (US 5,252,294) teaches a micromechanical structure, which anticipates claims 1-3, 6 and 9-13 – see figures, col 3 lines 15053 and col 8 lines 1-50.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krishnan S Menon whose telephone number is 571-272-1143. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L Walker can be reached on 571-272-1151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Krishnan Menon  
Patent Examiner

  
W. L. WALKER  
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